RAILWAYS SINCE INDEPENDENCE

MADRAS

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CHAPTER I

INTRODUCTION

There would, indeed, hardly be anyone in India in whose daily life the railways do not play a part, however, insignificant. The food we eat, the clothes we wear, the houses we live in and the hundred and one other articles of daily use which surround us in our homes, offices, business houses and elsewhere would probably not be there but for the railways.

With a route mileage of 34,705 on March 31, 1956, the railways are, indeed, our principal means of transport. They are, so to say, our life lines. It is estimated that 80 per cent of the goods and 70 per cent of the passenger traffic in inter-regional movement are carried by rail. The total investment on the railways now exceeds Rs. 1,000 crore and the men employed number about a million. Ours is thus Asia's biggest and the world's fourth largest railway system. It is also our single biggest nationalized undertaking.

Despite this leading position, India has much leeway to make up. The reason is obvious. It was a badly worn out, overworked, underequipped and emasculated railway system which we inherited from the British in August 1947. Its resources had been badly depleted. Owing to the world-wide economic depression in the early thirties, the expenditure on maintenance had to be slowed down or deferred. Thus, normal replacement, buying of rolling stock and other equipment had to be postponed till better days.

Then World War II broke out. The result was that the railways underwent a severe strain. Over 8 per cent of the metre gauge locomotives, 15 per cent of the metre gauge wagons, 4,000 miles of track and 4,000,000 sleepers had been sent to the overseas theatres of war; as many as 26 branch lines were dismantled. Also, spares were not readily available and repairs and replacements fell into heavy arrears. Within the country itself, the severe strain of the war traffic had played havoc with rolling stock and other equipment.

Partition made an already bad situation much worse. Owing to disturbances, millions of people moved across the Indo-Pakistan borders in both directions; and they had to be provided with food, clothing and other essentials of life. Thousands of Government employees and large quantities of equipment had to be transferred from one country to the other. Employment had to be found on the railways for thousands of employees in Pakistan who opted for service in the Indian Union. The vast movement of refugees resulted in drastic curtailment of normal passenger services, thereby seriously affecting the competition and movement of traffic. These were only a few of the many problems that further taxed the railway system which was already near the breaking point.

Nor was this all. The effects of the war were not yet over. There was need for increased production in various fields. At the same time, the sudden demand for civilian consumer goods called for an adequate transport system. The success of the rationing depended on how far the railways could transport large quantities of food from surplus to deficit areas and imported foodgrains from the ports to the interior. In addition, essential raw materials for India's industries and finished goods from factories had to be carried to various centres in the country.

Then, again, with the advent of independence, the various schemes for the country's economic and industrial development were undertaken. Obviously, it meant the

transport of large quantities of equipment from one part of India to another. In consequence, the demands on the railways steadily increased.

Naturally, like an overworked and fatigued person, the primary needs of the Indian railways after independence were rest and physical nourishment. The first it could not have because the nation could not wait. The second took the form of rehabilitation. This coincided with the first Five Year Plan. The Railway Plan thus necessarily became a rehabilitation plan. The next phase, which has already begun, will be that of development and expansion. This is the basis of the second Railway Five Year Plan.

CHAPTER II

PLANS AND SCHEMES

An important post-independence development has been the reorganization of the railways. With the integration of the States and the transfer of over 7,500 miles of railways to the Central Government and due to several other reasons, it became necessary to reorganize the entire railway system. Accordingly, a number of smaller railway systems were regrouped into six major zonal railway systems. These were called the Northern Railway, the Southern Railway, the Central Railway, the Western Railway, the Eastern Railway and the North-Eastern Railway. As a result of an increase in the load of traffic and the anticipated further increase during the second Five Year Plan period, the Eastern Railway was split on August 1, 1955, into two separate zones, known as the Eastern Railway and the South-Eastern Railway. Thus, there are now seven zonal systems in the country.

Railway Separation Convention

A development of some importance in railway finance was the revision of the Railway Separation Convention. Railway finance was separated from general finance from April 1, 1924 with the object of relieving the general budget from violent fluctuations and enabling the railways to carry on a continuous policy. Under the Convention, railway revenues had to pay to general revenues a contribution on the capital-at-charge and working results of commercial lines plus a share of the surplus profits. These arrangements

were subject to periodic revision. The Convention was reviewed in 1943, and by a resolution adopted by the Legislative Assembly on March 2, 1943, the contribution to general revenues for 1942-43 onwards was decided on an *ad hoc* basis.

The Convention was further reviewed in 1949 and again in 1954. The salient features of the revised Conventions are:

(i) that the existing relationship between general revenues and railway finance was altered to give the former the status of sole shareholder in the railway undertaking and general finances were granted a fixed dividend of 4 per cent on the loan capital invested in the undertaking as computed annually. From April 1, 1955, on the element of over-capitalization, the dividend to the general revenues was decided at the rate equivalent to the average rate charged to other commercial departments and on the capital-at-charge of new lines, at the aforesaid rate, during the period of construction and up to the end of their opening for traffic, the deferred amount being repaid from the sixth year onwards, in addition to the current dividend out of the net income of the new lines;

(ii) that the contribution to the Depreciation Reserve Fund was fixed at a minimum of Rs. 15 crore a year for the quinquennium commencing from April 1, 1950. This was raised to Rs. 35 crore from April 1, 1955; and

(iii) that a Development Fund was instituted (merging in it the Betterment Fund) for expenditure on passenger amenities, labour welfare works and unremunerative projects. The scope of the Fund was expanded from April 1, 1955 to include expenditure on the provision of amenities for users of rail, transport and quarters for class III staff; but the expenditure on the construction of new lines was excluded from the scope of the Fund. The general finance is to advance funds for the purpose of expenditure from the Development Fund in the shape of temporary loans, not to pay interest at the average borrowing rate. This amount is repayable in instalments, if necessary, form accretions to the Fund in more prosperous years.

The criterion for determining the remunerativeness of a project was fixed at 4.25 per cent from April 1, 1950, which was raised to 5 per cent from April 1, 1955. The Convention will be reviewed by the end of 1959-60.

The First Railway Plan

The first Railway Five Year Plan had a three-fold objective: (i) rehabilitation of railway assets; (ii) catering for increased traffic; and (iii) amenities for passengers and housing and welfare of staff. The primary task of the railways was, however, to overtake the heavy accumulation of arrears.

Accordingly, the Railway Plan provided for an expenditure of Rs 400 crore* for the five-year period. Of this amount, Rs 250 crore were to be spent on rehabilitation and development. A sum of Rs 20 crore was earmarked for the opening of new lines. Also, about Rs 15 crore were set apart for the provision of greater comforts for third class passengers.

Achievements

Happily, not only has the sum of Rs 400 crore been fully utilized, but the actual expenditure is likely to be Rs 432.07 crore, rolling stock alone accounting for Rs 237 crore. The railways have purchased 1,589 locomotives, 4,837 passenger coaches and 61,773 goods wagons during the Plan period.

Furthermore, of the 12 dismantled lines recommended for restoration by the Central Board of Transport, 11 lines covering 429.87 miles have been reopened to traffic. Again, 14 new lines covering about 379.98 miles have been completed. Also, two narrow gauge lines covering 46 miles have been converted into metre gauge. At the close of the first Plan, eight new lines covering 453.51 miles were under construction and 52 miles of narrow gauge lines were being converted into broad gauge. These include the 187 mile Khandwa-Hingoli line, the largest single line project to be undertaken since independence. Finally, three lines have been purchased at a cost of Rs 213.21 lakh.

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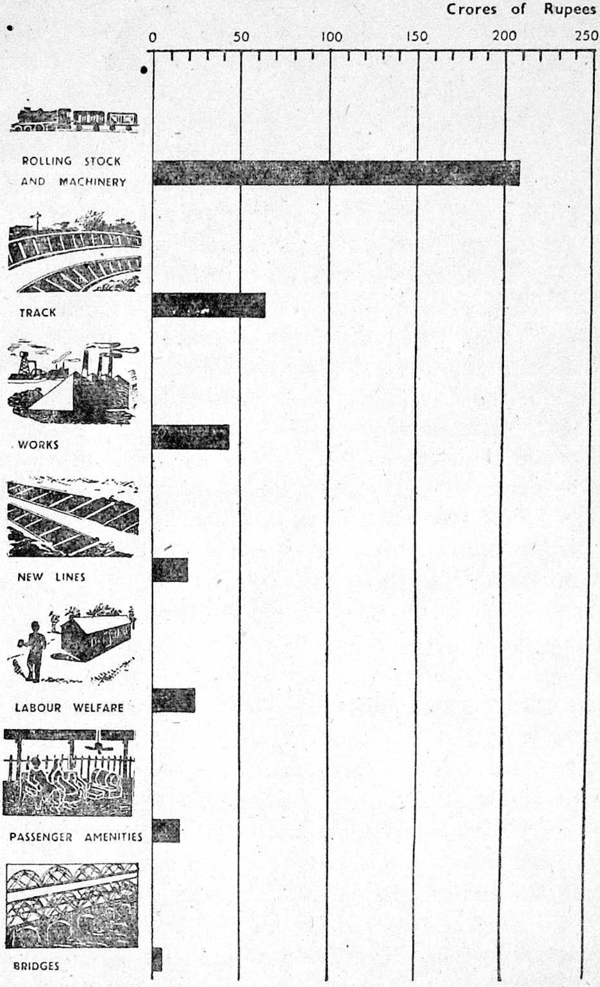
* For the progress of expenditure on the Railway Plan, see the Table at the end of the chapter.

THE RAILWAY PLAN

DEVELOPMENT EXPENDITURE ON MAJOR ITEMS FOR 1951-56

OUT OF A TOTAL APPROPRIATION OF Rs. 400 CRORE



The Chittaranjan Locomotive Works, which was expected to produce 268 locomotives during the Five Year Plan, has actually manufactured 341 locomotives. This is an improvement of 27 per cent over the target. The Integral Coach Factory at Perambur, too, went into production in October last, marking a major step towards making the railways self-sufficient in passenger coaches. The construction of the Ganga bridge rail-*cum*-road project in Bihar, which on completion in 1959-60 will solve the transhipment problems of East Uttar Pradesh, Bihar and North-East India, is well under way. Also, good progress has been made in the provision of facilities at the Vishakhapatnam port. Moreover, the electrification of the Howrah-Burdwan and the Tarakeshwar branch line on the Eastern Railway has been taken in hand. This scheme, estimated to cost Rs 11.84 crore, is the first phase of the much bigger project to electrify all the Calcutta suburban lines and the main lines up to Gomoh.

Special priority has also been given to the improvement of amenities for passengers, particularly those travelling by third class. The measures taken include the opening of new waiting halls, third class reservation facilities, the installation of fans in third class compartments, better drinking water arrangements, the appointment of social guides to assist passengers, the introduction of Janata Expresses, sleeping berths for third class passengers, the introduction of new integral type all-steel coaches and an all-third class corridor train, etc.

At the same time, measures have been adopted to deal with overcrowding. An increasing attention has been paid to the efficiency of performance. The Railway Board has, for this purpose, set up an Efficiency Bureau to undertake specialized studies. Recently, the scope of the Bureau's activities has been extended to cover, among other things, office organization. The Bureau has suggested ways and means of reducing the number of wagons awaiting repairs

in sick lines and workshops. This will increase the availability of rolling stock for traffic and effectively utilize the wagon-time.

Moreover, a security organization is being built up on each railway. Already, officers of the rank of the Deputy Inspector-General of Police have been appointed as Chief Security Officers. An officer of the rank of Inspector-General of the Railway Protection Force has been attached to the Railway Board. Side by side, an armed wing of the force is being built up for the protection of railway property and of goods entrusted to the railways for transit. A bill for this purpose is being introduced in Parliament. As a result of these and other measures, there has been considerable improvement in the position regarding claims for compensation.

While augmenting their physical resources, the railways have also taken several measures for improving their operational efficiency. The following table shows the progressive increase in the actual traffic lifted since 1950-51, the year immediately preceding the commencement of the first Five Year Plan :

Year	Originating tons (millions)	Ton miles (millions)
1950-51	91.4	26,963
1951-52	96.7	28,966
1952-53	97.8	28,906
1953-54	98.1	29,436
1954-55	105.8	32,100
1955-56	1115.0 (approx.)	—

Thus, there was an increase of nearly 26 per cent in the quantity of goods lifted from 1950-51 to 1955-56.

Obviously, it is an outstanding performance, especially when during this period there was no comparable addition to the number of wagons and locomotives on the line. Equally significant is the fact that the average rate of expansion of

transport during the earlier years of the Five Year Plan ranged from 3 to 4 per cent per annum as against about 1.5 per cent per annum before the war. The pace of increase will be very much greater during the last year of the Plan, i.e., 1955-56.

Among other notable developments during the Five Year Plan was the appointment of three important committees. The first was the Railway Equipment Committee for recommending measures for making the railways self-sufficient in respect of stores. The second was the Railway Freight Structure Enquiry Committee for devising a rating policy to assist national development consistent with the solvency of railway finances. The third committee was set up to recommend measures for eliminating overcrowding in suburban trains.

Moreover, steps are being taken to secure better co-ordination between the railways and other forms of transport. For this purpose, an amended Motor Vehicles Bill is ready for introduction in Parliament. A Rail-Sea Co-ordination Committee has also been appointed with a view to developing greater co-ordination.

Indeed, the task which the railways had to face during the first few years of independence was enormous. Happily, the railways complete the first Five Year Plan with a sense of solid achievement in many directions. There has been marked progress towards self-sufficiency, of which Chittaranjan and the Integral Coach Factory are two outstanding examples. The standard of passenger amenities has risen all round, particularly in third class. The railways operating efficiency index has also touched the highest point in the past 17 years and has even excelled the best performance during World War II, despite the fact that the movement of goods during the war years was largely regimented and, therefore, created fewer operation problems. Truly, the railways have embarked upon the second Five Year Plan with hope and confidence based on a record of solid achievement during the first Plan period.

PROGRESS OF THE FIRST FIVE YEAR PLAN

Expenditure in Each of the Plan Years

(Crores of Rs.)

Heads of expenditure	*First Year* 1951-52 *(actuals)*	*Second Year* 1952-53 *(actuals)*	*Third Year* 1953-54 *(actuals)*	*Fourth Year* 1954-55 *(actuals)*	*Fifth Year* 1955-56 *(Revised Budget)*	*Total*	*Allocation as previously envisaged in the Plan for 5 years*	*Excess or shortfall at the end of the Plan period*
1. Rolling stock, plant and machinery	34.36	33.23	40.37	58.69	86.79	253.44	207.96	+45.48
2. Track and bridges	10.72	13.96	10.93	13.93	14.87	64.41	70.47	− 6.06
3. Other structural & engineering works, including Integral Coach Factory, Chittaranjan Loco Works and Ganga Bridge Project, collieries and ports	6.84	7.34	8.17	10.77	16.84	49.96	45.90	+ 4.06
4. Restoration of dismantled lines, new lines and electrification	7.26	3.71	4.01	7.49	10.73	33.20	34.18	− 0.98
5. Passenger amenities	2.45	2.34	2.47	3.03	3.00	13.29	15.00	− 1.71
6. Staff quarters and staff welfare works	3.74	3.14	4.12	4.55	4.97	20.52	24.09	− 3.57
7. Miscellaneous items	5.49	−3.54	−5.86	−2.21	3.37	−2.75	2.40	− 5.15
TOTAL	70.86	60.18	64.21	96.25	140.57	432.07	400.00	+32.07

NOTE—All figures for 1954-55 and 1955-56 are figures of net expenditure, i.e., after taking into account probable savings and credits for released materials.

CHAPTER III

SELF-SUFFICIENCY

The Railway Plan, as already stated, was primarily a rehabilitation plan. However, the railways could not be content merely with rehabilitation. The foundation for achieving self-sufficiency in rolling stock and other equipment was also laid.

Already, several steps have been taken in this direction. Of these, the more outstanding ones are: self-sufficiency in locomotives through Chittaranjan and TELCO; self-sufficiency in passenger coaches through the Hindustan Aircraft Factory, Bangalore, the Integral Coach Factory, Perambur and the railway workshops; and self-sufficiency in goods wagons through the encouragement of private industry. The workshops are being modernized and the methods of production rationalized to achieve the maximum output.

Locomotives

The most important development has, perhaps, been in the manufacture of locomotives. A small number of locomotives had been manufactured in India since 1885 at Ajmer and Jamalpur. But the production was sporadic and depended on imported components. The need for an organized locomotive industry in India was thus keenly felt.

Accordingly, the Government extended financial assistance to the Tata Locomotive and Engineering Works at Jamshedpur by holding shares to the value of Rs. 2 crore for the manufacture of locomotives and spare boilers. The

TELCO turned out the first locomotive in 1952. In all, they have manufactured about 159 locomotives during the first Plan period. These are metre gauge locomotives of the 'YG' and 'YP' classes.

Meanwhile, the railways also set up their own locomotive manufacturing works at Chittaranjan. The first locomotive was turned out in 1950, the 100th in January 1954, the 200th in February 1955 and the 300th in November 1955. During the Plan period, 341 locomotives as against 268 expected to be produced have been manufactured. This marks an improvement of 27 per cent over the target.

At the same time, the cost of manufacturing a locomotive at Chittaranjan has gone down. From Rs. 7.47 lakh in 1951-1952, it came down to Rs. 6.05 lakh in 1953-54 and is estimated at Rs. 5.32 lakh in 1954-55, excluding the dividend payable. This compares favourably with the estimated landed cost of Rs. 5.25 lakh for locomotives recently ordered from Japan and of Rs. 5.50 lakh from Austria.

In the technical work that has been done at Chittaranjan, the layout, design, organization and administration have been the work of the Indian engineers. Only a few foreign technicians were employed to demonstrate the working of the machines, to help in the introduction of rate-fixing and to advise on production. Indeed, Chittaranjan represents a notable contribution in the field of development of heavy industries and in the railways' drive towards achieving self-sufficiency in locomotives.

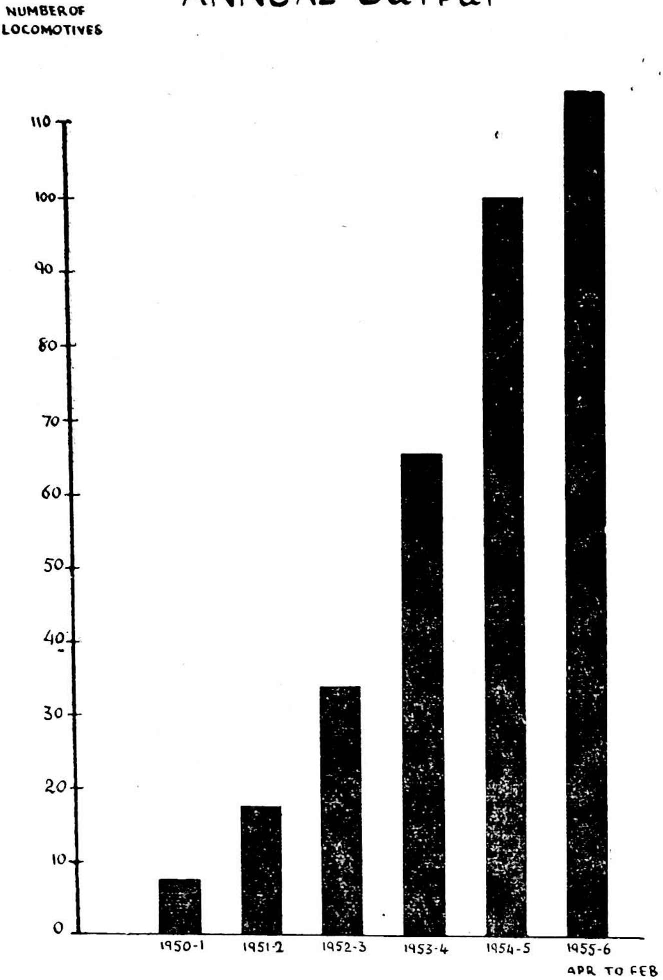
Passenger Coaches

As for passenger coaches, the railways had 18,654 on the line on April 1, 1939. Fourteen years later, i.e., on April 1, 1953, they were short by about 3,380 coaches, there being only 15,274.

We are now no longer dependent on imports of passenger coaches of the ordinary type. The Integral Coach Factory at Perambur went into production in October 1955 when the first all-steel coach was turned out. The Peram-

CHITTARANJAN LOCO WORKS

ANNUAL OUTPUT



bur Factory marks a major step towards making the railways self-sufficient in passenger coaches.

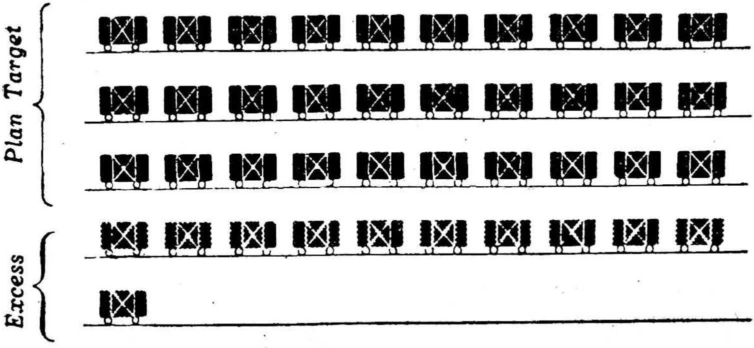
While the Integral Coach Factory was being built, the existing railway workshops also turned out an increased number of coaches despite the difficulties in procuring material. During the Plan period, as many as 4,384 coaches were turned out as against an average of 350 coaches a year in the pre-Plan years. This works out to an average of 877 coaches a year.

The achievement has, however, not been only in numbers. The new coaches provide more amenities, particularly in the third class compartments. These include electric fans and improved lighting, comfortable seating, washing and watering arrangements.

Goods Wagons

Since the beginning of the Plan, the production of goods wagons has also roughly been trebled. In the past, the manufacture of wagons was confined to four firms, the total average annual production being about 4,000 wagons. New firms were encouraged to start manufacture, while the existing firms enhanced their capacity. The result was that over 14,500 wagons were turned out during the last year of the first Plan. This great increase in numbers has been

Production of Goods Wagons Exceeds Target



achieved in spite of the difficult position in regard to the supply of steel and other materials.

Research

Marked progress has also been made in the field of research. The railways have, perhaps, the best industrial set-up in India. They have the largest organization for design, testing and research work. In the past, a major portion of the work was entrusted to the consulting engineers in London.

Consequently, after the attainment of independence, steps were taken to strengthen the railway research and standardization organization. The contract with the consulting engineers was terminated. In 1953, the Railway Research and Testing Centre was established at Lucknow.

Another important development has been in regard to the adoption of standards. Even before the formation of the Indian Standards Institute, the railways had a number of their own standards marked as I.R.S. standards. The Indian Standards Institute has largely drawn on these compilations in adopting relevant standards.

Stores

The Indian railways are also the biggest purchasers of a variety of stores and materials in the country, and their requirements will grow enormously during the second Plan period. Apart from foodgrains, their present yearly purchase of stores amounts to Rs 70 crore. For instance, the railways use every year over 10 lakh tons of coal, 2.5 lakh tons of steel, over 30 lakhs of sleepers, 1.9 lakh tons of pig iron and 30 lakh gallons of various oils and paints, varnishes, enamels, etc. They are also large purchasers of locomotive spares, engineering plant and components, workshop machinery, metals, screws, nuts, rivets, signalling and interlocking equipment, trimmings like textiles, fibre and leather articles, fans, lights, glasses, porcelain manufactures, building materials, telegraph and telephone equipment, etc. Indeed, the

railways provide an important market for many types of Indian commodities.

The bulk of these materials is purchased in India. Still, since many items are of a specialized nature, their manufacture within the country has not made very substantial progress. However, in order to achieve the largest measure of self-sufficiency, the Railway Equipment Committee was appointed in 1955 to recommend measures for increasing the manufacture of as many items as possible within the country. Already, the proportion of stores of Indian manufacture purchased by the railways two years earlier rose from about 70 to about 78 per cent in 1954-55, while the percentage of stores imported fell from 16.8 to 10.5 per cent.

Ancillary Industries

This is not all. The railways have also substantially contributed to the development of many ancillary industries. Among them, mention may be made of locomotive injectors, vacuum brake fittings, train lighting equipment and components, train lighting batteries and belting, signalling components, plywood, carriage flooring and compounds, linoleum, leather cloth for upholstery, paints and paint brushes.

Moreover, the manufacture of roller bearing for axle boxes, which have now been accepted as a standard equipment for locomotives, and train lighting dynamos has been undertaken. Wherever possible, the railways are revising standards and designs and types of equipment to enable their manufacture being carried out in the country. Special designs of electric resistance welded boilers and flue tubes have been accepted as alternatives.

While all this is gratifying, the demands of the railways in the second Five Year Plan are bound to increase very considerably. In the railway's policy of achieving the maximum self-sufficiency within the country lies a great opportunity for manufacturers to develop new industries and expand the many existing ones.

CHAPTER IV

DEVELOPMENT WORKS

As already pointed out, the condition of track had much deteriorated during the past 20 years owing to the difficulties of replacement and the heavy wear and tear of the war years. Renewals had been carried out only to the minimum extent for the purpose of safety. Also, speed has had to be restricted over several thousand miles of track owing to its bad condition. Accordingly, it was proposed to renew 400 to 500 miles of track every year. A sum of Rs. 64.87 crore was provided for this purpose in the Five Year Plan. However, owing to the inadequate supply of steel, rails and sleepers, the progress of track renewals has been somewhat behind schedule.

New Lines

Among other measures adopted for the rehabilitation of the railways was the undertaking of new constructions in order to meet the growing demands arising from the agricultural and industrial development of the country. The Five Year Plan provided Rs 28.52 crore for the construction of new lines and projects.

Thus, between April 1, 1947 and the end of the Plan period, the railways had opened to traffic 19 new lines totalling 758.92 miles. These included the 12 new lines commenced during the course of the Five Year Plan. Among these, the most important was the Assam Rail Link. The construction of this project, which was 142 miles long, began in 1948 and was completed well ahead of schedule, in spite

of adverse working conditions and difficulties of transport and terrain.

At the end of the first Plan, eight new lines were under construction totalling 454 miles. These were : the Khandwa-Hingoli; the Quilon-Ernakulam; the Champa-Korba; the Noamundi-Banspani; the Fatehpur-Churu; the Indor-Dewas-Ujjain; the Raniwara-Bhiladi and the Gandhidham-New Kandla railway lines. Moreover, the construction of three new lines, aggregating 221 miles, will be taken in hand during 1956-57 for the steel work projects at Rourkela and Bhilai.

Surveys

Besides new constructions, surveys for over 4,000 miles of new railway lines have peen carried out during the post-war period. Of these, those for the Mangalore-Hassan and Madhopur-Kathua lines are nearing completion, while those for the Gwalior-Ujjain, Nizamabad-Ramagundam, Sambalpur-Titilagarh, Baraset-Hasnabad, Sitamarhi-Sonbarsa, Bangalore-Salem, Trivandrum-Tinnevelli Cape Comorin, Vellore-Conjeevaram, Kotah-Chittorgarh and Udaipur-Himmatnagar lines are still in progress. The Loharu-Pilani survey has also been completed.

It is also proposed to construct a second road-*cum*-rail bridge over the Jamuna at Delhi with an avoiding line connecting Tughlakabad and Ghaziabad. An aerial survey of the west coast area from Dasgaon up to Mangalore has been completed to determine the possibility of railway communication in that region. During 1956-57, it is proposed to survey 15 more projects.

Restorations

Among other pressing needs was the problem of the restoration of dismantled lines. During World War II, 26 lines covering 855 miles had been closed down for meeting the demands of war in the Middle East.

Of the 12 lines out of the 26 dismantled branches, the restoration of which was approved by the Central Board of Transport, 11 lines were restored with the opening of the Utratia-Sultanpur section in June 1955. Thus, 498 miles out of 855 miles have been relaid. Of the remaining one line, namely, the Rohtak-Panipat link, its Rohtak-Gohana portion will be taken in hand in the coming year. The first Five Year Plan has thus closed with the problem of restorations having, in the main, been overcome.

Structural and Engineering Works

Within this category are included works like building up of crossing stations, provision for extra lines or **doubling of** track, lengthening of loops, remodelling of marshalling yards, signalling and telecommunication works, improvement to workshops, sick lines and power houses, etc. Priority has, naturally, been accorded to works designed to speed up the traffic. The total allocation for structural and engineering works for the five-year period was Rs 43.41 crore.

Special mention may be made of the following works which were completed or brought near completion: (1) Budni-Barkhera new down line construction; (2) subsidiary yard and north-south line at Kharagpur; (3) development of broad gauge-metre gauge transhipment facilities at Sakrigali-Manihari Ghat; and (4) doubling of the line between Kanpur and Ekdil, Malihabad and Bareilly and Hardoi and Kabrolia.

In addition, crossing stations have been built to expand line capacity of the sections concerned, extra lines provided, marshalling yards remodelled and training facilities expanded for the operating staff. Moreover, special attention has been paid to the modernization of signalling and telecommunication equipment and the spread of modern communication technique. In order to increase the capacity of stock and to utilize the extra line capacity to the maximum extent possible, extensive remodelling of workshops and repair

sheds and their modernization have been undertaken simultaneously.

Electrification

The total electrified route mileage on the Indian railways is 240.24. This includes 184.85 miles of Bombay-Kurla-Kalyan, Poona-Igatpuri and Kurla-Mankhurd on the Central Railway; 18.14 miles of Madras-Tambaram on the Southern Railway; and 37.25 miles of Bombay-Borivili-Virar on the Western Railway.

A beginning was made during 1954-55 with new schemes of electrification. These were: the Howrah-Burdwan main line and the Tarakeswar branch line (all services) on the Eastern Railway; the third line between Egmore and Tambaram (Madras) on the Southern Railway; and the up and down through line between Andheri and Borivili on the Western Railway. The line between Bandra and Andheri was opened to traffic on April 16, 1953. The electrification of the through line of the remaining section between Andheri-Borivili was, however, held up owing to the delay in obtaining material from abroad.

Workshops

Finally, the existing workshops are being expanded and new ones set up. The railways have, at present, 50 main workshops, including the Perambur Integral Coach Factory. Of these, 38 are mechanical workshops, 6 engineering workshops, 4 electrical workshops and one signal workshop.

Most of the workshops were, however, built many years ago, while the rolling stock on each railway has been increasing gradually. Compared to the position at the end of March 1955, the holdings of rolling stock by March 1961 are expected to increase by nearly 1,550 locomotives, over 5,800 passenger coaches and about 99,000 goods wagons. The increase in rolling stock has already brought heavy pressure on railway workshops engaged in repair and overhaul work. It has, therefore, been found necessary to expand the exist-

ing workshops and to set up new ones to meet the future requirements.

Accordingly, it is proposed to expand the Gorakhpur and Izatnagar workshops on the North-Eastern, the Jagadhri workshops on the Northern, the Perambur and Hubli workshops on the Southern, the Ajmer and Mahalakshmi workshops on the Western, the Jhansi workshops on the Central and the Kanchrapara workshops on the Eastern Railways. Furthermore, the Amritsar workshop is being taken over from the Punjab Government to be developed for loco repairs. The Western, South-Eastern, and probably the Southern Railways, will also need a new wagon shop each, and the North-Eastern Railway a new carriage and wagon shop.

In addition, it is proposed to set up two new workshops for manufacturing spare parts of the new types of locomotives. One will feed the Eastern, North-Eastern, Northern and metre gauge portions of the Western Railways and the other the South-Eastern, Southern, Central and broad gauge portions of the Western Railways. The foundation stone of the first of these two workshops was laid by the President, Dr. Rajendra Prasad, at Banaras on April 23, 1956.

The new workshops, fitted with modern machinery and equipment, will help to relieve pressure on the existing workshops. Several repair workshops will undergo minor expansions. Also, such bottlenecks, as now exist, will be removed by the introduction of balancing facilities.

The cost of the expansion and of the setting up of new units is estimated at about Rs 46 crore during the second Five Year Plan.

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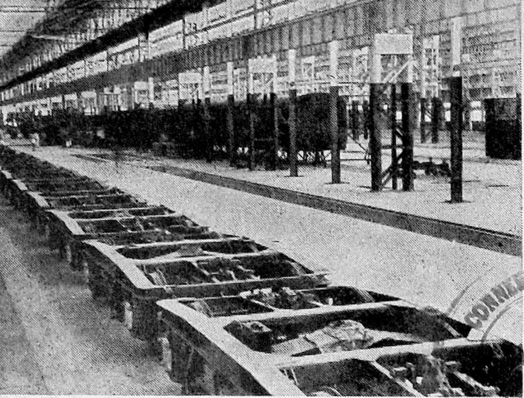
A refugee special train from Pakistan



The Integral Coach Factory Workshop, Perambur

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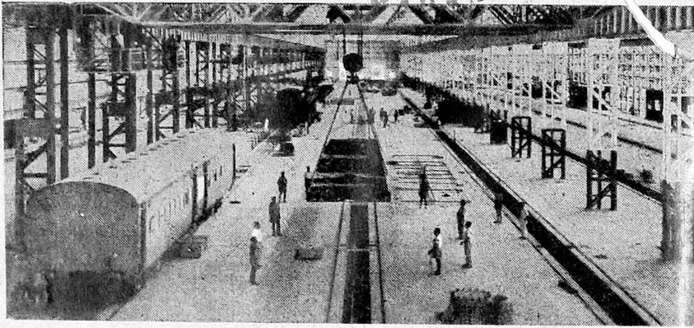
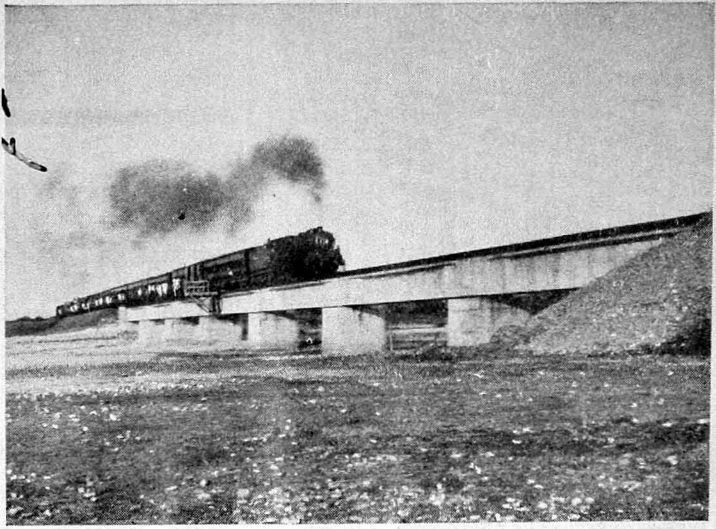


The main assembly shop, Chittaranjan



Assam Rail Link

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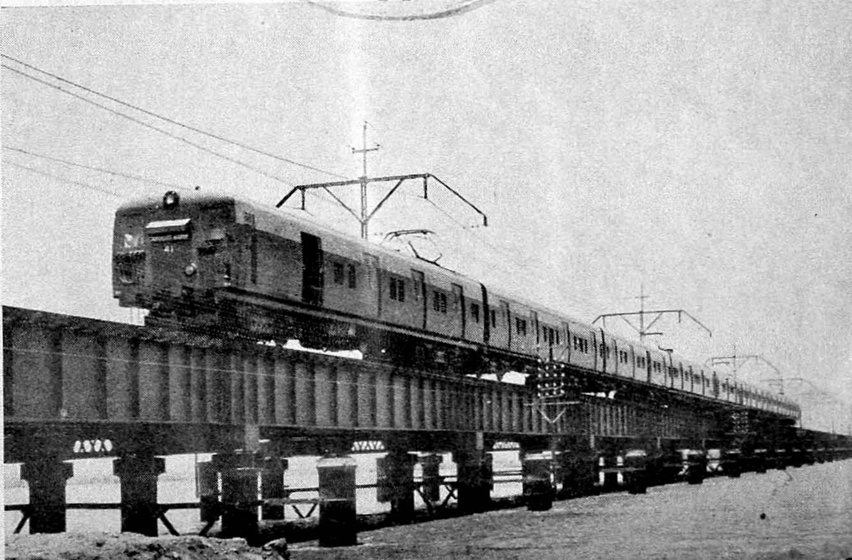
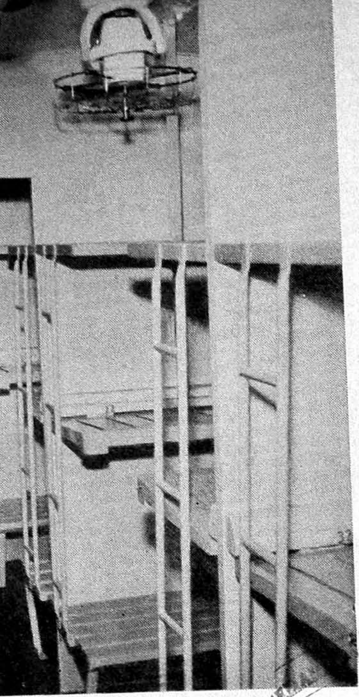
A Calcutta suburban electric train on the Bassein bridge





A third class sleeping car

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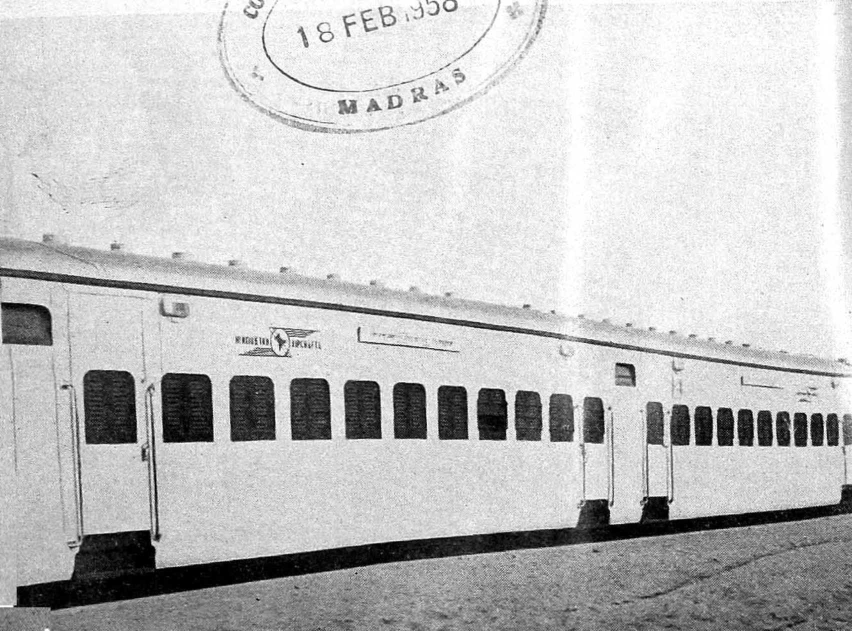
A third class coach



A third class dining car

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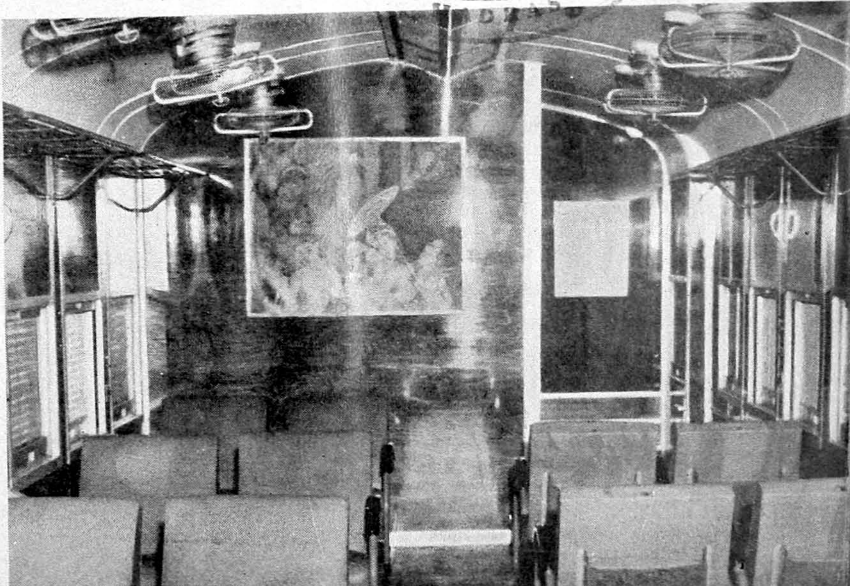
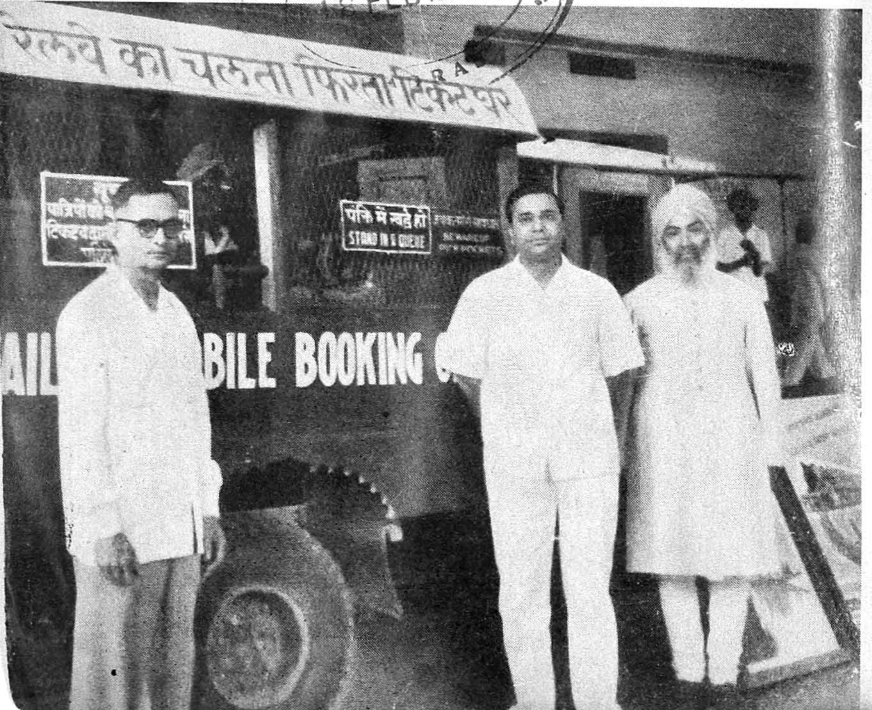
A first class chair car



An upper class dining car

FEB 1958

A mobile booking office



Multi-storeyed quarters for railway employees

18 FEB 1958
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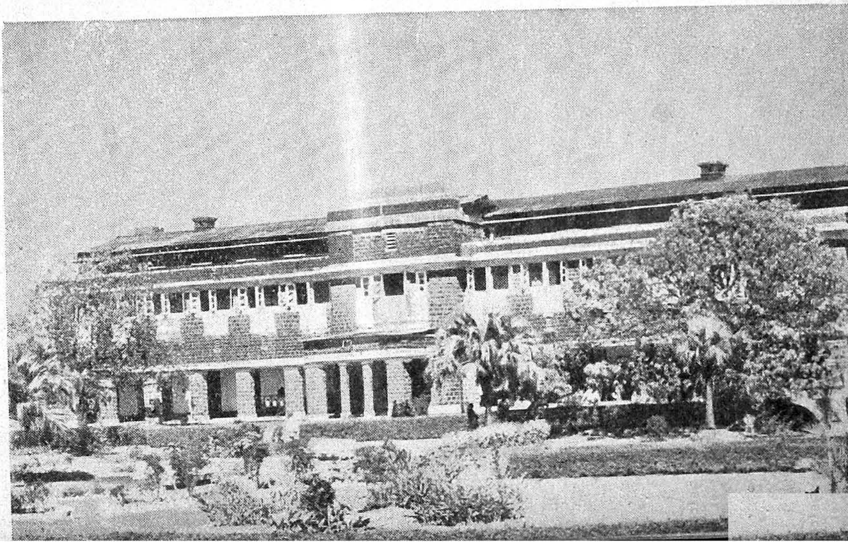
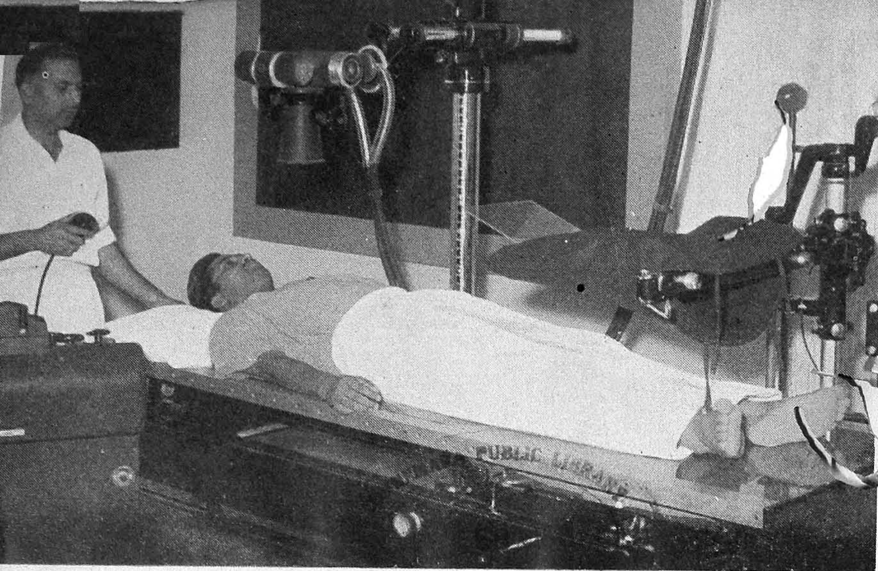
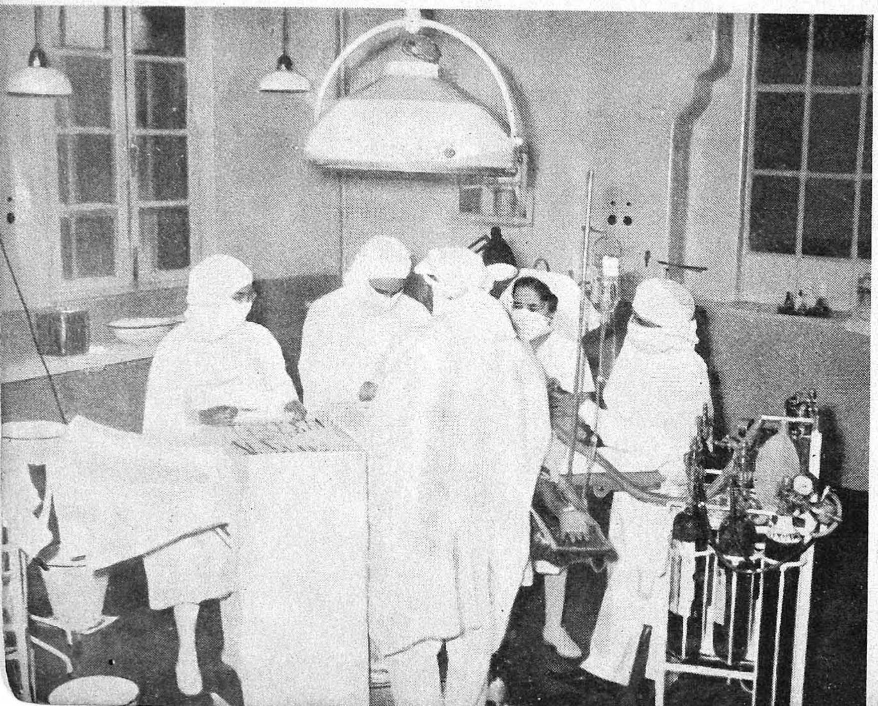
A railway hospital





An x-ray plant in a hospital

A modern air-conditioned operating theatre



A higher elementary school

18 FEB 1958
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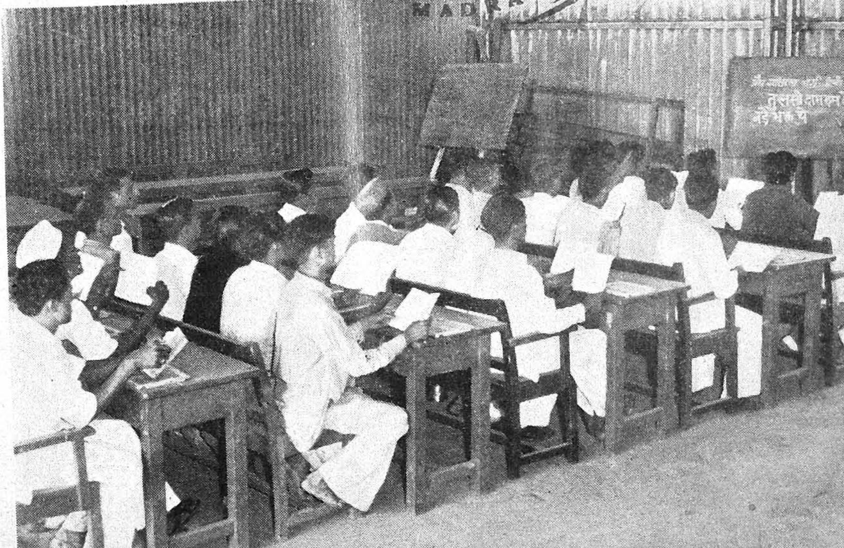
An adult literacy class



A sewing class in progress

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18 FEB 1958
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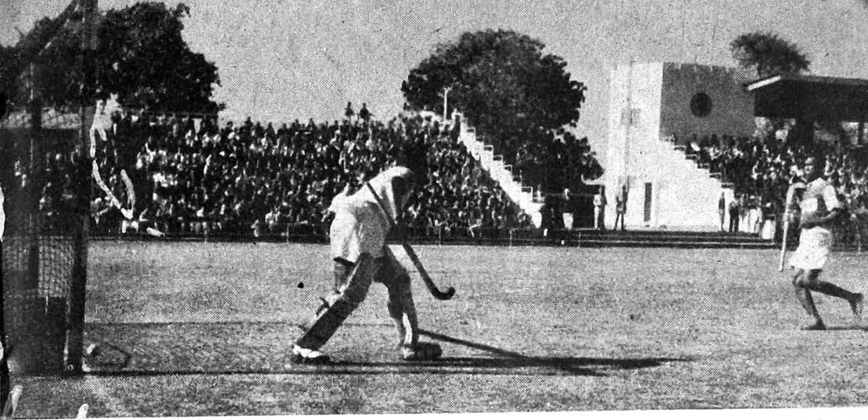
In children's park



A hockey match in progress

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18 FEB 1958
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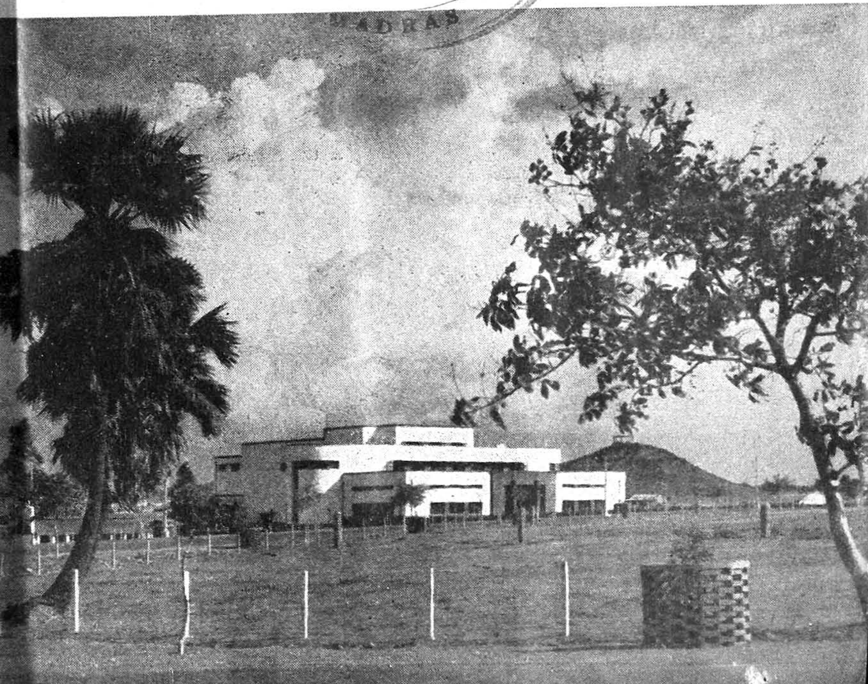
The workers' recreational club



The workers' canteen

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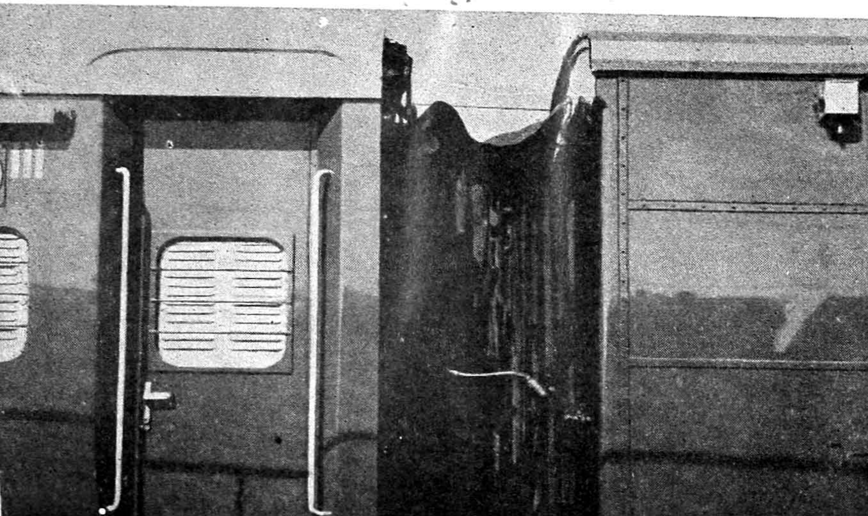
A third class corridor train



CHAPTER V

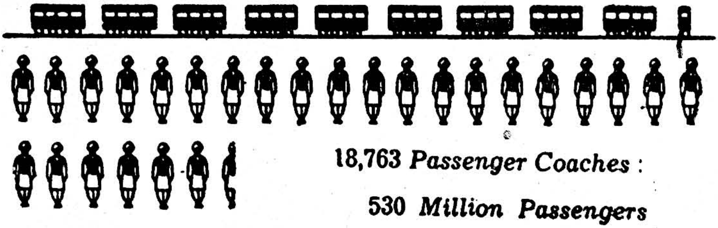
OPERATIONAL EFFICIENCY

Before the first Indian railway line was opened in 1853, a heated discussion took place in England and India how hazardous and expensive the introduction of railways in this country could be. And yet, today, leaving out the Japanese National Railways, the Indian railways carry the largest number of passengers in the world. Since independence, in particular, the demand has generally been in excess of what the railways have been able to meet satisfactorily. The following table shows the increase in traffic since 1947-48 :

Class I Government Railways

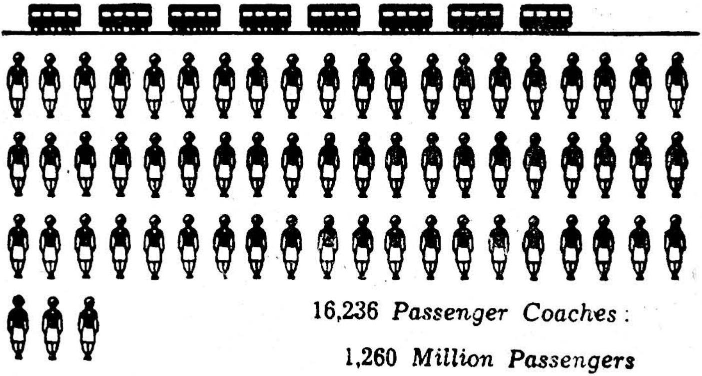
	Passengers miles (in millions)	Passengers carried (in millions)
1947-48	1,016.1	32,149.5
1948-49	1,152.4	37,128.9
1949-50	1,239.9	38,465.1
1950-51	1,323.3	41,159.4
1951-52	1,247.3	36,928.3
1952-53	1,233.6	39,030.2
1953-54	1,238.1	37,095.6
1954-55	1,275.3	38,316.1
1955-56	1,337.0 (Estimated)	41,200.0 (Estimated)

1938-39



1954-55

Fewer Coaches — More Passengers



It will be clear from above that since independence the passenger traffic was the highest in 1950-51. In 1951-52 and 1952-53, however, there was a decrease. Again, there was a rise in 1953-54 till the railways carried nearly 1,337.0 million passengers in 1955-56. Passenger mileage also showed an increase from 36,928.3 million in 1952-53 to 41,200.0 million in 1955-56. To carry this increased number, the railways had fewer coaches in 1955-56 than in 1938-39; and even these included an uneconomically large percentage of average stock.

Goods Traffic

Large increases have also taken place in goods traffic. This has increased from 69.8 million tons in 1947-48 to 115.0 million tons (estimated) in 1955-56. The following table shows the actual traffic lifted since independence :

Class I Government Railways

	Tonnage originating (in millions)	Ton miles (in millions)
1947-48	69.8	20,117
1948-49	78.5	22,387
1949-50	87.7	25,119
1950-51	91.4	26,963
1951-52	96.7	28,966
1952-53	97.1	28,906
1953-54	98.1	29,510
1954-55	105.8	32,100
1955-56	115.0 (Estimated)	34,660 (Estimated)

The above table shows that there was an increase of 64 per cent in the quantity of goods lifted from 1947-48 to 1955-56. This is a remarkable performance, particularly when during this period there was no comparable addition to the number of wagons and locomotives on the line.

Engine and Wagon Usage

Apart from large increases in the quantity of goods lifted, the operational performance has been most remarkable. This is judged by the intensity of use to which the rolling stock is put. Thus, the intensity of engine usage is best indicated by net ton miles per day per engine in use. The following table shows this composite index :

Year	Broad Gauge	Year	Metre Gauge
1938-39	24,172	1938-39	10,795
1941-42	26,960	1941-42	12,383
1947-48	23,044	1948-49	10,212
1954-55	29,345	1954-55	12,851

Thus, the war-time peak performance has been excelled both on the broad and metre gauge systems. The 1954-55 index shows an improvement of 27 per cent on the broad gauge and 26 per cent or the metre gauge when compared to the lowest figure recorded since the war.

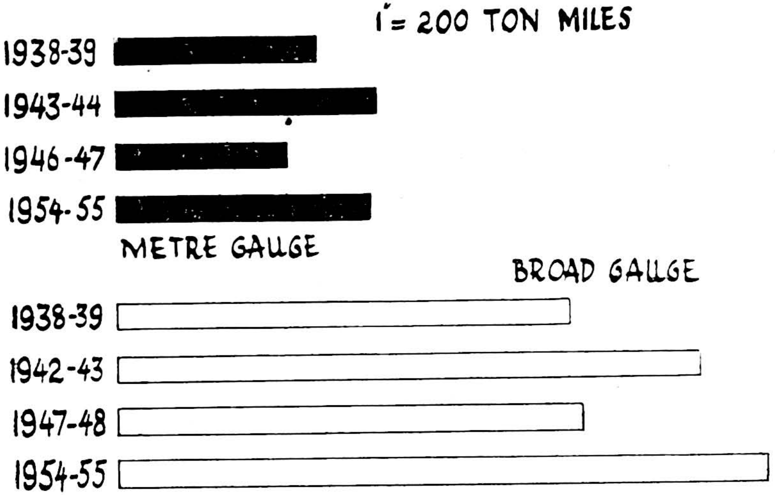
Similarly, the composite index of net ton miles per wagon day shows the intensity of wagon usage. This covers both the quantity of goods carried and the distance covered. The following table shows this index for 1938-39 for the best year during the war, for the worst year after the war and for the fourth year of the first Five Year Plan :

Year	Broad Gauge	Year	Metre Gauge
1938-39	351	1938-39	147
1942-43	451	1943-44	201
1947-48	351	1946-47	133
1954-55	485	1954-55	194

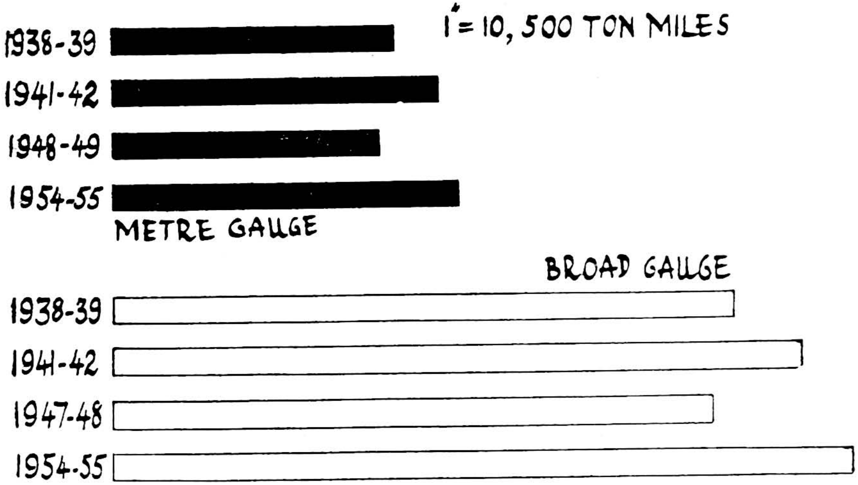
Again, the war-time "best" has been bettered on the broad gauge system. As for the metre gauge, the index rose to 204 in 1952-53, but fell back in the subsequent years to 194 owing to dislocation caused by heavy floods. Compared to the lowest index recorded since the war, the 1954-55 figure shows an improvement of 38 per cent on broad gauge and 46 per cent on metre gauge.

If we compare the index of net ton miles per wagon day of the Indian railways with that of some of the large foreign railway systems, it becomes clear that, with the exception of Japan, the wagon usage is the best in India.

NET TON MILES PER WAGON DAY



NET TON MILES PER DAY PER WAGON IN US



It is even better than that of the United States, Canadian and British railway systems.

The improvements, which have taken place over the best war-time performance, will appear all the more significant, if we remember that during the war a sizable portion of the traffic covered long distances resulting in quicker transit. During the post-war period, the traffic has resumed its normal feature consisting of short distance hauls. Obviously, this cannot be operationally as economic and efficient as transport in bulk over long distances.

Experimental Scheme

As an experimental measure, a special scheme for the quick transit of goods on important trunk routes has been introduced from April 1, 1956. The basic features of the scheme are that the goods will be carried by express goods trains within a guaranteed period and that their movement will be specially watched. A small percentage of the normal freight will be levied extra for the service, and this will be refunded if the guarantee is not fulfilled.

CHAPTER VI

AMENITIES FOR PASSENGERS

Not the least significant among the achievements of the Indian railways since independence is the great improvement that has taken place in providing amenities for passengers. The railways carry about 1,300 million passengers annually, of whom the majority travel third class; and yet, until independence, they belonged to the "forgotten class." Much of what the railways provided in the form of amenities was for the use of the small minority of upper class passengers. For them, there were convenient booking offices, well-equipped waiting rooms, refreshment and retiring rooms and a variety of fittings in the compartments. The third class passengers, on the other hand, had an ordeal of buying their tickets, the bare sky to rest under at a station and an uninviting compartment to travel in.

However, during the past few years, much has been done to make rail more comfortable and to remove the gap in the amenities enjoyed by various classes of passengers. The first Five Year Plan provided a sum of Rs 15 crore for this purpose. A similar provision is being made during the second Five Year Plan also.

Minimum Amenities

The railways have now laid down that certain minimum amenities must be provided at all stations irrespective of their size or status. These include waiting halls, a *pucca* platform surface, benches and shady trees on platforms, improved types of latrines, adequate arrangements for

lighting and drinking water and sufficient number of booking windows. The more important stations will have certain additional amenities. In addition, electricity and telephone are to be provided at stations where these can conveniently be made available.

Overcrowding

The problem that required urgent solution was that of overcrowding in trains. At present, about 2,000,000 more passengers board the trains in the Indian Union daily than they did in 1938-39 in undivided India. Their total number today is, on an average, about 3,500,000 per day.

Consistent with the availability of coaching stock, locomotives and line capacity, the railways have taken several measures in this direction. Thus, during the Plan period, more than 3,500 coaches have been put into service and as many as 760 additional trains introduced, an average of about 13 new trains per month. In addition, the runs of 525 trains has been extended to cover more stations.

However, overcrowding still persists on certain sections. The railways periodically conduct a census of passenger traffic to find out on which sections overcrowding is particularly severe. The results of the last census have been studied and to ease the situation instructions have been given to run longer trains on sections where this is technically possible. More rail cars are being introduced for short-distance traffic where it is heavy. This will partially help to ease overcrowding.

In so far as overcrowding on the suburban services is concerned, the Ministry of Railways appointed a committee last year to recommend measures for affording relief. The committee has already submitted its report, and it is being examined.

Better Travel Standard

The passengers have to spend most of their time inside the trains. Naturally, it is here that they look for the

maximum comfort. In the old type coaches, the compartments had narrow, uncomfortable seats, with lighting arrangements over which the passengers had no control, with no fans and with hardly any conveniences provided in the lavatory. The new all-steel coaches have, on the other hand, set a high standard which compares favourably with the best of its kind in the world.

In the new coaches, accommodation has been provided for only 80 passengers as against 110 in the old coaches, thereby allowing more room to each passenger. Seats have been specially designed to provide greater sitting comfort. Lights can be put on or put off, while soft blue night lamps have been added to keep the insects out. A more pleasing inside finish and commodious lavatories fitted with mirrors, wash basins and flushing type stainless steel commode and taps are other features of the new coach. Fans are being fitted in old coaches, while all new third class coaches are provided with fans before they are put into service.

The Janata Express trains consisting entirely of third class are now running on important sections. These trains provide a cheap, fast service to suit the needs of the long-distance passengers. Third class sleeper coaches on about a dozen trains and reservation of accommodation in through service coaches on long journeys have also been introduced. The "Find Your Own Berth" charts are now put up at busy stations to enable the passengers to find out for themselves precisely in which part of the train their accommodation has been reserved and in a particular compartment which berths have been allotted to them. A coach with only seating accommodation has also been introduced for first class passengers undertaking short journeys. Again, dining cars, retiring rooms and upper class entrances and exits have been thrown open to third class passengers. More city booking offices and agencies are being opened for the convenience of the general public. The Northern Railway has, in particular, introduced mobile booking office for the convenience of travelling public at Kanpur. This novel

experiment has already proved a success and a large number of people are daily buying their tickets virtually at their door steps.

At the same time, greater attention is being paid to sanitized latrines and urinals, more fans and improved lighting for third class waiting halls. Also, clean, electrically-cooled drinking water is now available for passengers at 150 stations, in addition to 11,000 watermen supplying pure drinking water to passengers on platforms and trains. The Northern Railway and the North-Eastern Railway even serve water to passengers in moving trains on certain sections.

The railways have also installed a large number of self-printing ticket machines to speed up the issue of tickets to passengers. With the help of these machines, tickets can be issued at the rate of 1,000 per hour as against only 300 by a booking clerk. This will help to reduce the length of queues and delays at booking offices and to prevent fraud.

In addition, various types of concessional return tickets are now issued on all the zonal railways, including concessional tickets for hill stations for holiday-seekers anxious to escape the heat of the plains during the summer. At the same time, yearly, half-yearly, quarterly and monthly platform tickets have been introduced for the convenience of those who have to visit railway stations frequently.

Vestibuled Trains

On october 2, 1955, the railways took an important step, on an experimental basis, to make railway journey more comfortable by introducing the first Janata vestibuled train between Delhi and Howrah for third class passengers. An obvious advantage of a corridor train is that there is greater safety for passengers who can also walk from one end to the other even when the train is in motion, get food and water without moving out at stations and, at the same time, spread themselves out more evenly in the compartments. Each coach accommodates 80 passengers and, except for the dining and the sleeping car, is of the integral, all-steel, light

weight insulated type. The railways have also planned to introduce from October 1956 a fully air-conditioned train for first and third class passengers. This train will be the fastest operating on the entire Indian railway system.

Films

The railways have embarked on another novel experiment. For the first time, a special train left Howrah on March 14, 1956, with a specially built cinema coach attached to it. It is proposed to attach this coach shortly to a Janata train. The "cinema on wheels" will screen documentary films on the Five Year Plan, cultural subjects and various railway projects.

The railways are also planning to exhibit films at important stations and in mobile vans especially fitted up for the purpose. The object of showing these films is to usefully fill the time of the passengers while waiting for trains or during a long journey and, at the same time, to acquaint them with developments taking place in the country.

Catering

Catering is another subject to which the railways have, in recent years, devoted special attention. From September 1954, a standard menu and a standard charge for meals in Indian style have been introduced in refreshment rooms. Furthermore, cheap, standard menus to suit regional tastes are being evolved. New restaurant and dining cars are also being built according to modern designs. Special attention has been paid to greater sitting comfort for passengers, clean and hygienic surroundings and arrangements for quick and efficient service.

Following the recommendations made by the Railway Catering Committee under Shri O. V. Alagesan, Deputy Minister for Railways and Transport, departmental catering has been introduced at Delhi, Pathankot and Gorakhpur. The system is being extended to a number of other important stations. Several other improvements are also being

planned, including extensive sale of cheap food packets and the provision of dining or restaurant cars on all express and long-distance trains.

Furthermore, women have been associated with the drive to improve the standard of catering. Supervisory committees have also been constituted on each zonal railway for better inspection of catering establishments.

Thus, much has been done during the past few years to improve the conditions of rail travel in general and those of third class in particular. The pace is obviously not as rapid as the Government would like it to be. Apart from the limitation of funds, the shortage of physical resources, such as steel, construction materials and the like, has often been a stumbling block.

CHAPTER VII

RAILWAY EMPLOYEES

The Indian railways are the largest single employers in the country. At present, they have nearly 10 lakh persons on their pay roll. In other words, one out of every 400 Indians is a railwayman.

Of the million railwaymen, more than 2 lakhs toil on machines in workshops; about 1½ lakhs are spread along the track, packing sleepers with ballast, driving spikes and watching the safety of the track; many thousands stand alert at levers and charts in cabins and control rooms. In addition, a large number work behind the wheels which move on and on to carry 35 lakh passengers every day and an enormous quantity of goods. Besides, several thousands work in the offices.

Service Conditions

In compliance with the recommendations of the Central Pay Commission, the service conditions of a majority of railwaymen have greatly improved in the past few years. The Commission had a twofold objective : reduction in the top salaries and increase in the emoluments of the Class III and Class IV staff, particularly the latter. Hence, a minimum basic wage of Rs. 30 plus Rs. 25 as dearness allowance was fixed for the lowest grade of Class IV staff, thus boosting the railway wage bill by nearly Rs. 25 crore. Later, at the instance of the Joint Advisory Committee, another Rs. 2 crore were added to the wage bill.

The Central Pay Commission also recommended the grant of a liberal scale of dearness allowance to compensate for the increased cost of living, half of which was later added to the pay of the railway servants in the various pay groups up to a monthly scale of Rs. 750. This together with the liberalized leave rules represented a substantial improvement, particularly in the conditions of workshops and Class IV staff.

Adjudicators's Award

The late Shri Justice Rajadhyaksha gave an award in 1947 in regard to hours of work, periodic rest, leave rules and leave reserves for Class III and Class IV staff. The acceptance of the Award resulted in the employment of an additional 65,000 persons on the Indian railways and the absorption of 15,000 surplus displaced persons from Pakistan and the Indian nationals who had returned from Burma. The Award was binding on the nine Indian Government Railways and also on ex-Indian Railways.

The salient features of the Award were the classification of all railway employees as intensive, continuous, essentially intermittent or excluded workmen; and the prescription of maximum hours of work at 45 a week for intensive, 54 a week for continuous and 75 a week for essentially intermittent workers. Periodic rest on a liberal scale was also to be granted to the staff. Running staff, drivers, guards, etc., were, for the first time, brought within the scope of the Hours of Employment Regulation and now work to a comfortable 54 hours a week. Moreover, leave reserves were improved. Generally speaking, the Award has resulted in really improving the working conditions of railwaymen.

The magnitude of the improvements can be gauged by the fact that the expenditure on the staff has risen by over Rs. 50 crore per annum against a total wage bill of Rs. 89.6 crore in 1946-47.

The Plan

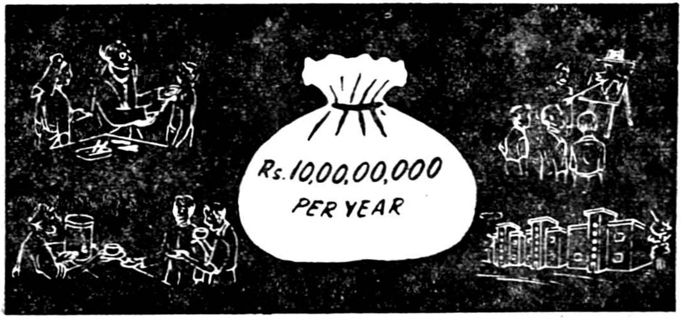
Under the first Five Year Plan, a sum of Rs. 23.93 crore

was set apart for labour welfare, staff quarters and other welfare works. The following table shows the expenditure during the Plan period :

1951-52	(actuals)	.. ..	Rs. 3.74 crore
1952-53	(actuals)	.. ..	Rs. 3.14 crore
1953-54	(actuals)	.. ..	Rs. 4.12 crore
1954-55	(actuals)	.. ..	Rs. 4.55 crore
1955-56	(revised budget)	..	Rs. 4.97 crore

Although the originally proposed financial outlay of Rs. 1,480 crore for the second Five Year Plan for the railways

First Five Year Plan



Second Five Year Plan

has been substantially reduced, the provision of Rs. 50 crore for staff welfare and quarters remains unaltered. This is more than double the amount estimated to have been spent under the first Plan. While the expenditure during the first Plan period was Rs. 412 lakh a year, it is expected to be Rs. 1,000 lakh a year during the second Plan.

Amenities

Besides higher scales of pay, shorter hours of work, periodic rest and liberalized leave rules, the railway employees enjoy a variety of other amenities.

Housing

Before the first Plan, there were nearly 290,000 residential units for the railway staff. In other words, over 30 per cent of the staff were living in railway houses.

During the first Plan period, nearly 41,000 houses have been built. This works out to an average of 8,200 houses a year. During the second Plan period, it is proposed to construct 60,000 more quarters, primarily for the essential staff who are required to live near the site of their work and for the non-essential categories at stations where there is a shortage of private accommodation. The standard of accommodation, design, sanitation, etc., in the railway colonies compares favourably with those provided in the vicinity for the same class. In the railway townships, established recently, special attention has been given to the comfort of the low paid staff.

It may be mentioned that railways today spend Rs. two crore a year on the maintenance of their housing against a mere Rs. 45 lakh before 1947.

Medical Care

The railways have an efficient and well-equipped medical organization. There are, at present, 75 well-furnished and adequately staffed hospitals, 411 dispensaries and 3,226 beds and nearly 20,000 medical personnel. The railways

have also recently taken over the management of the maternity and child welfare centres which were formerly being financed from the Staff Benefit Fund. In quite a large number of railway hospitals, x-ray and electro-cardiogram apparatus have been provided. Apart from this, the railways have been giving attention to the treatment of railwaymen suffering from tuberculosis and have taken over 293 beds in various sanitoria, in addition to the 45 beds in their own hospitals. Negotiations are under way for taking up more beds. Chest clinics are being established at many railway district hospitals.

At the dispensaries, facilities are available for vaccination for small-pox, anti-rabic treatment and inoculation against typhoid, cholera and plague. BCG teams are functioning on some railways.

Recently, an officer has been placed on special duty to co-ordinate and recommend measures for further expansion of medical facilities. Furthermore, it is proposed to attach to the new hospitals at New Delhi and Bombay specialists in the diseases of eye, ear, nose, throat, chest and teeth. Also, laboratories will be provided for pathological examinations.

Education

The railways have not been unmindful of the importance of education of the children of their employees. They run 154 schools for boys and girls at places where there are either no conveniently situated schools or are not of the requisite standard. The expenditure on this account is nearly Rs 26 lakh per annum, a little more than what is incurred in some of the States. Grants are also being given to a number of non-railway schools. Recently, the railways have undertaken to review the facilities for primary education in the railway colonies so as to open schools where such facilities are not available. It is also proposed to grant 1,000 scholarships for technical education to deserving children of railway employees.

Recreation

Also, steps have been taken to provide increased social and cultural amenities to workers. Railway institutes, which now exist on all the lines, serve as centres for such activities. They have provision for cinema shows, library and reading rooms, canteens, sports grounds, indoor and outdoor games and swimming pools. Railway institutes are also taking keen interest in amateur theatricals and classical music and dancing.

Other Amenities

Among other amenities are the provision of cost price canteens giving cheap and wholesome food to staff. Besides, there are, at present, 105 consumer cooperative societies on the seven zonal railways.

Also, rest homes for the staff are being opened at suitable hill stations or sea-side resorts or other natural surroundings to enable the railwaymen to spend their holidays inexpensively and in reasonable comfort.

Staff Benefit Fund

The railways have established a Staff Benefit Fund to which formerly contributions were made from the railway revenues at the rate of Rs. one per head for the non-gazetted staff. This has been increased to Rs. two per head as a temporary measure from April 1, 1955. The Fund is managed by the representatives of the administration and the staff and the money is spent on recreation, amusement, scholarships, relief of distress among members or ex-members of the staff and their families not covered under the staff welfare regulations.

Training

In a gigantic undertaking like the railways, the training of officers and staff is of primary importance. Training is essential both in initial and later stages to enable the employees to get acquainted with their work and later shoulder higher responsibilities.

A Staff College for the training of Class I and Class II officers and Special Class Apprentices was opened at Baroda on January 31, 1952. The College provides facilities for training of probationery officers and special class apprentices, refresher courses for junior officers of all departments (except medical), and special short-term courses on selected subjects for senior officers.

For the training of Class III staff, there are 24 training schools, including one each at the Chittaranjan Locomotive Works and the Perambur Integral Coach Factory. Some of these are technical schools attached to the railway workshops to train apprentices for eventual appointment as skilled artisans or as supervisors of skilled workers. Refresher and promotion courses also exist in the various schools.

Under the second Five Year Plan, a sum of Rs 3 crore is being provided for further expansion of the training facilities. An Officer on Special Duty has been appointed to review the existing training facilities, to plan for their expansion and to arrange for the setting up of temporary centres for initial training, promotion and refresher courses on each railway.

Apart from this, special facilities like study leave are given to selected officers. A number of officers are being sent abroad on deputation under the Colombo Plan, Point Four Programme, etc., to study modern developments in railway engineering and operation.

Labour in Management

Finally, a scheme is being drawn up to associate workers, especially those in the lower cadres, in the management and running of railway workshops. It is also proposed to send a team, including the representatives of the workers, to foreign countries where the participation of workers in management has been tried.

Moreover, the workers are being given greater powers and responsibility in matters concerning their welfare. Already, they are represented on the Staff Benefit Fund,

Labour Advisory Committees and canteens, the last of which are, in some cases, managed by them on a cooperative basis. The number of elected representatives on each of these committees is being increased with the fullest freedom to take decisions.

Labour Relations

Labour relations have generally been cordial during the period. An index of this is the significant decline that has occurred in the number of man-days lost on account of strikes. The loss, which was 0.2 per cent in 1948-49, has come down to 0.013 per cent in 1951-52. Efforts continue to be made to win the goodwill and cooperation of the workers so that the railways may with their help boldly face the many pressing problems in the years ahead.

CHAPTER VIII

SECOND FIVE YEAR PLAN

The Indian railways, as stated earlier, were faced with many pressing problems immediately after partition. That they stood the strain without causing serious dislocation to the country's economy is the most striking feature of their achievement during the earlier years of independence.

Indeed, by March 1948, the railways had not only turned the corner, but showed definite signs of recovery. Gradually, they have succeeded in easing the transport bottlenecks and securing freer movement of goods. There has been a steady improvement in operational efficiency also.

Furthermore, the index of ton miles and passenger miles has reached record levels, some of the figures being the highest ever reached by the Indian railways. The completion of the Assam Rail Link well ahead of schedule and the setting up of the Chittaranjan Locomotive Works and the Integral Coach Factory at Perambur are only some of their major achievements.

Since 1951, when the first Five Year Plan was launched, the railways have been almost wholly preoccupied with the task of rehabilitating their assets and augmenting their capacity. Not only have they had to provide for the sharply increasing passenger and goods traffic, but have had to overtake the heavy accumulation of arrears. In addition, the railways have had to provide more amenities for passengers and look after the housing and welfare of their staff.

Happily, the railways have not only fulfilled the targets laid down in the Plan, but have even exceeded them. Never-

theless, the rehabilitation still remains incomplete. The pressure on the railways for dealing with expanding traffic also continues unabated. More than anything else, we should have an adequate transport service in order to keep pace with the large industrialization programme which forms the main feature of our second Plan. The large-scale expansion of the railways is thus inevitable.

Accordingly, a huge expansion programme has been drawn up for the next five years. The over-all size of the second Railway Plan is almost three times that of the first. Even this appears to be quite inadequate to meet the expanding demands of the railways.

Of Rs. 1,125 crore provided for the next five years, a sum of Rs. 375 crore will have to be found by the railways from their own funds. If, however, their own resources exceed this figure, the Railway Plan will be enlarged accordingly.

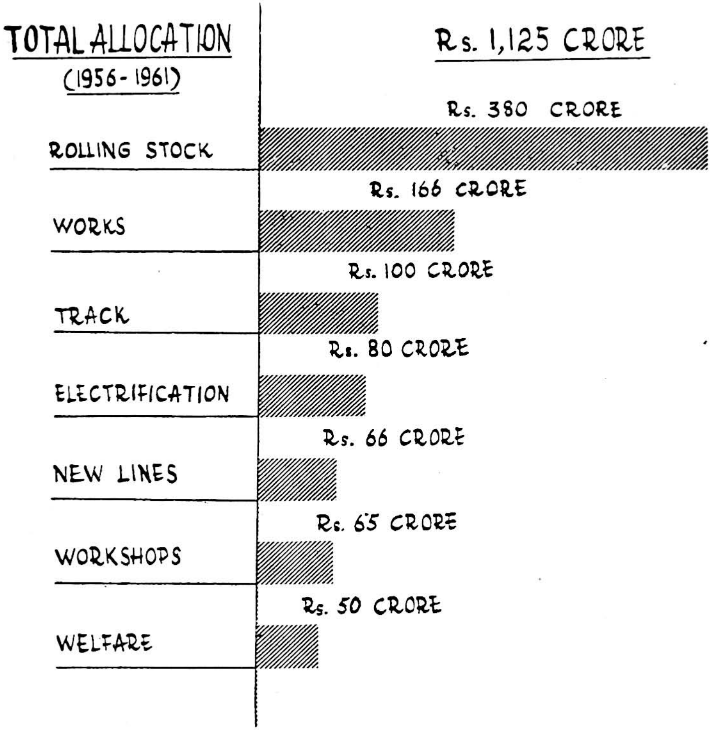
Objectives

Broadly speaking, the railways during the second Plan period will aim not only at continuing the rehabilitation of their assets, but also at carrying 15 per cent more passenger and 40 per cent more goods traffic. The small increase of three per cent per year in passenger train miles now planned will, however, not help much in relieving overcrowding as long as the passenger traffic continues to grow at the present rate.

Such large increase in the volume of traffic necessarily calls for the rapid expansion of the resources of the railways. These will be principally in the direction of putting more rolling stock on the line and increasing line capacity through large-scale doubling of tracks and the provision of facilities for the maintenance and construction of new lines. There will also be big schemes of electrification, dieselization of certain sections and installations of improved signalling. At the same time, the efforts to provide more amenities for

passengers and housing and welfare measures for railway employees will continue during the second Plan period.

Accordingly, it is proposed to spend about Rs. 380 crore on the procurement of rolling stock, about Rs. 66 crore on the construction of new lines and Rs. 100 crore on the renewal and strengthening of track. Works intended to increase the capacity of the railway lines have been allotted Rs. 166 crore. A sum of Rs. 65 crore has been provided for the expansion of the existing workshops and the setting up of new ones for the maintenance of rolling stock.



Furthermore, it is proposed to electrify about 800 miles of track at a cost of Rs. 80 crore. The route mileage of the

electrified track in India is, at present, only 240. On a few sections, it is proposed to introduce diesel engines. Finally, a sum of Rs. 50 crore is being provided for housing and welfare measures for the railway staff. This is about two and a half times the sum spent during the first Five Year Plan.

Such, then, is the shape of the Railway Plan that is going to be. Out of every rupee's worth of investment in the public sector, the railways alone will claim three annas: True, within the proposed provision of Rs. 1,125 crore, it will not be possible to lift all the traffic that is likely to offer itself during the next five years. But the transport situation will be kept constantly under review in order to make the necessary adjustments in the amount allotted to the railways as the second Plan progresses.

Indeed, the second Five Year Plan poses many difficult problems before the railways. Nevertheless, they must march along with the other sectors of our national life. The Plan is both an opportunity and a challenge. It is an opportunity for the railways to bridge part of the gap between the demands and the resources through better and efficient management. It is a challenge to them to prove that they can deliver the nation's goods.

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MADRAS